



Naval Education and
Training Command

NAVEDTRA 80062
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Nonresident Training
Course (NRTC)

Mathematics, Volume 2-A

Only one answer sheet is included in the NRTC. Reproduce the required number of sheets you need or get answer sheets from your ESO or designated officer.

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Although the words "he," "him," and "his" are used sparingly in this manual to enhance communication, they are not intended to be gender driven nor to affront or discriminate against anyone reading this material.

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MATHEMATICS, VOLUME 2-A

NAVEDTRA 80062

Prepared by the Naval Education and Training Program Management
Support Activity (NETPMSA), Pensacola, Florida

Congratulations! By enrolling in this course, you have demonstrated a desire to improve yourself and the Navy. Remember, however, this self-study course is only one part of the total Navy training program. Practical experience, schools, selected reading, and your desire to succeed are also necessary to successfully round out a fully meaningful training program. You have taken an important step in self-improvement. Keep up the good work.

HOW TO COMPLETE THIS COURSE SUCCESSFULLY

ERRATA: If an errata comes with this course, make all indicated changes or corrections before you start any assignment. Do not change or correct the associated text or assignments in any other way.

TEXTBOOK ASSIGNMENTS: The text for this course is *Mathematics, Volume 2-A*, NAVEDTRA 10062. The text pages that you are to study are listed at the beginning of each assignment. Study these pages carefully before attempting to answer the questions in the course. Pay close attention to tables and illustrations because they contain information that will help you understand the text. Read the learning objectives provided at the beginning of each chapter or topic in the text and/or preceding each set of questions in the course. Learning objectives state what you should be able to do after studying the material. Answering the questions correctly helps you accomplish the objectives.

Students taking this course should have a basic knowledge of algebra. The treatment of this subject in *Mathematics, Volume 1*, NAVEDTRA 10069-D1 should provide the student with the necessary background information.

BLACK DOT INFORMATION: Black dots (●) may be used in the course to emphasize important or supplemental information and to highlight instructions for answering certain questions. Read these black dot

entries carefully; they will help you answer the questions and understand the material.

SELECTING YOUR ANSWERS: After studying the associated text, you should be ready to answer the questions in the assignment. Read each question carefully, then select the BEST answer. Be sure to select your answer from the subject matter in the text. You may refer freely to the text and seek advice and information from others on problems that may arise in the course. However, the answers must be the result of your own work and decisions. You are prohibited from referring to or copying the answers of others and from giving answers to anyone else taking the same course. Failure to follow these rules can result in suspension from the course and disciplinary action.

ANSWER SHEETS: You must use answer sheets designed for this course (NETPMSA Form 1430/5, Stock Ordering Number 0502-LP-216-0100). Use the answer sheets provided by Educational Services Officer (ESO), or you may reproduce the one in the back of this course booklet.

SUBMITTING COMPLETED ANSWER SHEETS: As a minimum, you should complete at least one assignment per month. Failure to meet this requirement could result in disenrollment from the course. As you complete each assignment, submit the completed answer sheet to your ESO for grading. You may submit more than one answer sheet at a time.

GRADING: Your ESO will grade each answer sheet and notify you of any incorrect answers. The passing score for each assignment is 3.2. If you receive less than 3.2 on any assignment, your ESO will list the questions you answered incorrectly and give you an answer sheet marked "RESUBMIT." You must redo the assignment and complete the RESUBMIT answer sheet. The maximum score you can receive for a resubmitted assignment is 3.2.

COURSE COMPLETION: After you have submitted all the answer sheets and have earned at least 3.2 on each assignment, your command should give you credit for this course by making the appropriate entry in your service record.

NAVAL RESERVE RETIREMENT CREDIT: If you are a member of the Naval Reserve, you will receive retirement points if you are authorized to receive them under current directives governing retirement of Naval Reserve personnel. For Naval Reserve retirement, this course is evaluated at 11 points. Naval Reserve Retirement credit will not be given if the student has previously received retirement credit for any *Mathematics, Part 2-A* NRTC. (Refer to BUPERS-INST 1001.39 for more information about retirement points.)

STUDENT QUESTIONS: If you have questions concerning the administration of this course, consult your ESO. If you have questions on course content, you may contact NETPMSA at:

DSN: 922-1673

Commercial: (904) 452-1673

FAX: 922-1819

INTERNET:

NETPMSA.N3222@NETPMSA.CNET.NAVY.MIL

END-OF-COURSE QUESTIONNAIRE: Whether or not you complete the course, you are asked to complete the end-of-course questionnaire tear-out form in the back of this booklet. Questionnaire data will be used to evaluate the course material.

COURSE OBJECTIVES: The objective of this course is to enable the student to:

a. Apply logarithms to the solution of problems encountered in mathematics and the sciences.

b. Apply trigonometric techniques as tools in the analysis of mathematical, physical, and scientific problems.

Naval courses may include several types of questions--multiple-choice, true-false, matching, etc. The questions are not grouped by type but by subject matter. They are presented in the same general sequence as the textbook material upon which they are based. This presentation is designed to preserve continuity of thought, permitting step-by-step development of ideas. Not all courses use all of the types of questions available. You can readily identify the type of each question, and the action required, by reviewing of the samples given below.

MULTIPLE-CHOICE QUESTIONS

Each question contains several alternative answers, one of which is the best answer to the question. Select the best alternative, and blacken the appropriate box on the answer sheet.

SAMPLE

- s-1. The first U.S. Navy nuclear-powered vessel was what type of ship?
1. Carrier
 2. Submarine
 3. Destroyer
 4. Cruiser

Indicate in this way on your answer sheet:

| | | | | |
|-----|--------------------------|-------------------------------------|--------------------------|--------------------------------|
| | 1 | 2 | 3 | 4 |
| | T | F | | |
| s-1 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _ _ _ |

TRUE-FALSE QUESTIONS

Mark each statement true or false as indicated below. If any part of the statement is false, the entire statement is false. Make your decision, and blacken the appropriate box on the answer sheet.

SAMPLE

- s-2. Shock will never be serious enough to cause death.
1. True
 2. False

Indicate in this way on your answer sheet:

| | | | | |
|-----|--------------------------|-------------------------------------|--------------------------|--------------------------------|
| | 1 | 2 | 3 | 4 |
| | T | F | | |
| s-2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _ _ _ |

MATCHING QUESTIONS

Each set of questions consists of two columns, each listing words, phrases or sentences. Your task is to select the item in column B which is the best match for the item in column A. Items in column B may be used once, more than once, or not at all. Specific instructions are given with each set of questions. Select the numbers identifying the answers and blacken the appropriate boxes on your answer sheet.

SAMPLE

In answering questions s-3 through s-6, SELECT from column B the department where the shipboard officer in column A functions. Responses may be used once, more than once, or not at all.

A. OFFICER

B. DEPARTMENT

- | | |
|-------------------------------|---------------------------|
| s-3. Damage Control Assistant | 1. Operations Department |
| s-4. CIC Officer | 2. Engineering Department |
| s-5. Disbursing Officer | 3. Supply Department |
| s-6. Communications Officer | 4. Navigation Department |

Indicate in this way on your answer sheet:

| | | | | |
|-----|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------|
| | 1 | 2 | 3 | 4 |
| | T | F | | |
| s-3 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _ _ _ |
| s-4 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _ _ _ |
| s-5 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> _ _ _ |
| s-6 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> _ _ _ |

